

## **Summary of Design of the Nursing Home Value-Based Purchasing Demonstration**

### **Background**

The Nursing Home Value-Based Purchasing (NHVBP) Demonstration is the Centers for Medicare & Medicaid Services (CMS) “pay-for-performance (P4P)” initiative to improve the quality of care furnished to all Medicare beneficiaries in nursing homes. Under this demonstration, CMS will provide financial incentives to nursing homes that demonstrate certain high standards for providing quality care or improvement over time. The demonstration will include all Medicare beneficiaries who are in a nursing home (i.e., those that receive only Part B benefits as well as those that receive Part A benefits, many of whom are also eligible for Medicaid).

The approach will be to assess the performance of nursing homes based on selected quality measures, and then make additional payments to those nursing homes that achieve the best performance or the most improvement based on those measures. Performance will be assessed in the following four domains: staffing, appropriate hospitalizations, outcome measures from the minimum data set (MDS), and survey deficiencies. The payment pool for each State will be determined based on Medicare savings that result from reductions in Medicare expenditures, primarily from reductions in hospitalizations. We anticipate that higher quality of care will result in fewer avoidable hospitalizations, resulting in decreases in Part A hospitalizations and subsequent Part A nursing home stays.

CMS will select up to five States to host the demonstration. CMS will also pick two alternate States in the event that some of the selected States are not able to participate. We estimate that a few hundred hospital-based and free-standing nursing facilities will participate in the demonstration, about 50 in each State with approximately the same number of nursing homes per State in a control group.

CMS plans to hold meetings or conference calls with the host States to collect feedback on the proposed demonstration design. Thus, this description is based on the current status of the design and is subject to change and further development.

### **Demonstration Design**

**Timeframe:** CMS is planning to implement a 3-year demonstration and anticipates that it will begin in summer 2009. Prior to implementation, CMS will select the host States and will recruit nursing homes within the selected States. Nursing homes will be required to submit an application (which will include data derived from their payroll systems) in order to be considered for the demonstration. During the demonstration, CMS will collect data from the participating nursing homes. Within 12 months after each demonstration year, CMS will determine the quality scores for the sites and will calculate and make the performance payments.

**Quality Measures:** We have identified a set of core performance measures to be used in the first year of the demonstration, and a set of measures that are not included in the system initially but that may be added during the second year of the demonstration or later pending the results of ongoing research and development efforts. The “core” measures include:

1. Staffing Domain: Staffing is a vital component of quality care for nursing home residents. There is considerable evidence of a relationship between nursing home staffing levels and resident outcomes. The Phase I and Phase II CMS Reports to Congress on “Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes” studies found that staffing levels below certain levels placed residents at increased risk of hospitalizations and poor quality outcomes. Several studies have found an association between nursing staff turnover and resident outcomes. The staffing measures under consideration for the demonstration are:
  - Registered nurse/ Director of Nursing (RN/DON) hours per resident day;
  - Total licensed nursing hours (RN/DON/licensed practical nurse) per resident day
  - Certified Nurse Aide (CNA) hours per resident day; and
  - Nursing staff turnover rate.

Because differences in resident acuity affect the staffing levels needed to care for residents, the measures based on staffing level will be case mix adjusted. CMS is working on a casemix model for the staffing level measures. At a minimum, the casemix adjustment will be based on a nursing home’s average Resource Utilization Groups-III nursing index.

We intend to use payroll data as the source for nursing home staffing and turnover measures. Requiring nursing homes to report their staffing information using payroll records is an important part of ensuring that accurate staffing data is used for the quality-based purchasing system. Staffing measures calculated from payroll data will be used due to their accuracy and potential to be audited.

The staffing domain counts for 30 percent of the total nursing home performance score.

2. Appropriate Hospitalizations Domain: The study “Appropriateness of the Decision to Transfer Nursing Facility Residents to the Hospital”<sup>1</sup> suggests that careful management of certain kinds of conditions may reduce the number of hospitalizations that occur. Hospitalizations for these conditions are considered to be “potentially avoidable.” Other studies suggest that a substantial portion of hospital admissions of nursing home residents are inappropriate. There are separate measures for nursing home short stayers (those in a Medicare Part A stay) and long stayers, based on the hospitalization rates of potentially avoidable hospitalizations.

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<sup>1</sup> Saliba, D., Kington, R., Buchanan, J., Bell, R., Wang, M., Lee, M., Herbst, M., Lee, D., Sur, D., and Rubenstein, L., 2000.

Potentially avoidable hospitalizations will include hospitalizations for a set of conditions. The potentially avoidable hospitalization measures will be risk-adjusted, using covariates from Medicare claims and the MDS. We will build on the risk-adjustment models developed for the short-stay population as part of the CMS staffing studies. Covariates may include measures related to demographics, function, resuscitation orders, cognitive performance, and clinical conditions. Regarding scoring, we are considering approaches that will minimize the incentive for homes to avoid appropriate hospitalizations, such as not awarding additional points for nursing homes that are above the top quartile in their performance on this measure.

The hospitalization domain counts for 30 percent of the overall performance score.

3. MDS Outcomes Domain: The use of performance measures based on resident outcomes is consistent with the Institute of Medicine's recommendations that financial incentives be aligned with the achievement of better patient outcomes. We plan to use a subset of already-developed and validated MDS-based quality measures (QMs). The measures address a broad range of functioning and health status in multiple care areas. We have selected these measures based on their validity, reliability, statistical performance, and policy considerations:

Chronic Care Residents: We will use five of the QMs posted on Nursing Home Compare:

- Percent of residents whose need for help with daily activities has increased;
- Percent of residents whose ability to move in and around their room got worse;
- Percent of high-risk residents who have pressure ulcers;
- Percent of residents who have had a catheter left in their bladder; and
- Percent of residents who were physically restrained.

For each of these measures, the exclusion criteria, minimum required sample, and risk adjustment methodology would be the same as used in the publicly reported measures.

Post-acute Care (PAC) Residents: We will use three of the PAC quality measures that were validated in 2004:

- Percent of residents with improving level of Activities of Daily Living (ADL) functioning;
- Percent of residents who improve status on mid-loss ADL functioning; and
- Percent of residents experiencing failure to improve bladder incontinence.

The MDS-based outcome measures will count for 20 percent of the nursing home's total performance score.

When MDS 3.0 is implemented, CMS will review this domain and may revise the measures as appropriate.

4. Survey Deficiencies Domain: All nursing homes that participate in the Medicare or Medicaid programs must be certified as meeting certain Federal requirements. Certification is achieved through nursing home surveys, which occur on a regular basis (on average once every 12 months). These surveys, conducted by trained professionals, provide another dimension of quality assessment of nursing homes. The survey deficiency domain is used in two ways:
- Survey deficiencies serve as a screening measure. Any nursing home that, in the demonstration year, received a citation for substandard quality of care or that had one or more citations for actual harm or higher would not be eligible to receive a performance payment. This screening criterion would ensure that homes with otherwise high performance scores would not receive a performance payment if they had serious quality of care issues identified by surveyors.
  - Survey deficiencies serve as part of homes' performance scores, based on the deficiencies that homes receive on their survey. Values will be assigned based on the scope and severity of deficiencies and the regulatory areas where deficiencies occur. Nursing homes will be ranked within each State according to their values.

Survey deficiencies will count for a total of 20 percent of the total performance score. Note that performance scores will be determined on a state-by-state basis, reducing concerns about the variations in survey outcomes across States.

CMS will determine the number of points that each nursing home is assigned for each domain, and will sum the points across all domains to yield an overall score for each nursing home.

There are other potential performance measures (including measures related to resident experience with nursing home care and staff immunizations) that cannot be used in the first year of the demonstration because of a need for additional developmental work. We plan to continue conducting research on these and other measures for possible use in years 2 and 3 of the demonstration.

**Scoring Rules:** For each of the performance measures, we plan to use a continuous scoring system that awards points over a range of values. For each measure, points will be assigned to nursing homes based on their rank in terms of the performance measure during

each demonstration year, using the entire range of the distribution for all but the hospitalization measure. This approach avoids having large changes in scores due to small changes in performance.

**Performance Payments:** The demonstration will be budget neutral to Medicare. We anticipate that certain avoidable hospitalizations will be reduced as a result of improvements in quality of care. The reduction of avoidable hospitalizations and subsequent skilled nursing facility (SNF) stays is expected to result in savings to Medicare. These savings will constitute a pool from which we will make the performance payments.

The demonstration is intended both to reward high performing homes and to encourage improvement for homes that may not have good quality initially. As a result, the performance payments will be determined based both on the level of performance and improvement in performance over time. CMS will determine which nursing homes qualify for a performance payment based on their overall performance scores. Those with the highest scores and those that show the most significant improvement in their scores from the prior year will be eligible to receive a performance payment.

We plan to link nursing home performance to performance payments based on the following:

- Performance payments will be based on the overall performance score rather than the scores on individual performance measures or categories of measures. This is because the intent of the demonstration is to reward homes that provide overall high quality care rather than those that excel in individual areas.
- Homes with an overall performance score that is in the 80<sup>th</sup> percentile or higher in terms of performance level qualify for a performance payment. Homes in the 90<sup>th</sup> percentile or higher would receive a performance payment that is 1.2 times the payment to those in the 80<sup>th</sup> to 90<sup>th</sup> percentile.
- Homes in the 80<sup>th</sup> percentile or higher in terms of improvement qualify for a performance payment in recognition of their improved performance (with those in the 90<sup>th</sup> percentile or higher receiving 1.2 times the payment as above), as long as their performance level was at least as high as the 40<sup>th</sup> percentile in the performance year. This required minimum level will ensure that homes do not receive performance payments for improvement if their overall level of performance is low.
- Payments are weighted based on the number of resident days for residents who are Medicare beneficiaries, including beneficiaries whose nursing home stay is not covered by Medicare (i.e., those receiving only Part B services).

- The performance payment pool will be distributed such that the amount of the performance payment would be the same whether a nursing home qualified as a top performer or improver, assuming that the home would be in the same decile (e.g., the 90<sup>th</sup> percentile or higher).
- To assure that qualifying nursing homes contribute to reduced hospitalization rates (thus savings), a nursing home will not qualify for a performance payment unless it meets one of the following conditions:

Either: (a) The nursing home's hospitalization rate in the demonstration year does not exceed its base year rate plus 20 percent; or (b) The nursing home's hospitalization rate in the demonstration year does not exceed the median hospitalization rate for the comparison group for that year in that State.

Homes that qualify for a performance payment based on both performance level and improvement that are in different deciles (e.g., the 90<sup>th</sup> percentile or higher for improvement and the 80<sup>th</sup> percentile or higher for high scores) would receive payment for either performance or improvement but not both. They would receive the higher of the two performance payments for which they qualify (e.g., for improvement but not high score).

**Savings Pool:** CMS will randomly assign the applicant nursing homes to experimental and control groups for each State, after stratifying the nursing homes based on certain characteristics. Nursing homes in the experimental group will participate in the demonstration; nursing homes in the control group will be used to allow us to estimate Medicare savings for each State and to evaluate the impact of the demonstration. Within 12 months after the conclusion of each demonstration year, CMS will compare certain risk-adjusted Medicare Part A and B payments per resident between the experimental and control groups. Any actual savings will be determined based on the difference in the growth of the risk-adjusted Medicare costs between the two groups.

**Calculation of Savings:** This savings calculation will be similar to the approach already developed for an ongoing Medicare demonstration, the Physician Group Practice (PGP) Demonstration. Medicare savings will be calculated as the actual per-resident-day or per episode expenditures for the experimental group minus the expected per-resident-day or per episode expenditures for the experimental group. The expected expenditures will be determined based on the change in expenditures for the control group from the base period to the performance period. Performance payments will be made from savings pools that will be calculated separately for each State.

The demonstration is expected to result in a reduction in avoidable hospitalizations and subsequent SNF stays, producing savings to Medicare. However, the demonstration is also expected to result in an increase in Medicaid expenditures. This is because the anticipated

reduction in hospitalizations and Medicare SNF stays will lead to an increased number of Medicaid-covered days in the nursing home for long-stay residents (since Medicaid would likely be the primary payer).

The additional Medicaid expenditures are expected to be offset to some extent. If hospitalizations are avoided, then any costs that Medicaid would normally cover for hospitalized long-stay residents (such as payments to hold the bed or for Medicare deductibles) would also be avoided. The extent of this offset would depend on each State's specific bed-hold and Medicare deductible payment policies.

**Risk Adjustment:** In order to make comparisons of the Medicare expenditures between the experimental and control groups, health status needs to be held constant. Resident expenditures per day will be adjusted using a risk adjustment model that uses diagnoses from Medicare claims to predict the average expected expenditures of a population based on its health status. CMS will develop a risk adjustment model that is appropriate for this population and the associated time periods.

**Shared Savings:** The shared savings approach for this demonstration will be similar to the methodology used for the PGP demonstration. First, savings pools will be funded only from calculated savings that exceed a threshold of 2.3 percent of Medicare Part A and B expenditures. A payment threshold avoids paying for small differences in the growth of Medicare expenditures between the experimental and control groups that could be due to chance. Second, savings above the threshold will be divided, with 80 percent going to the demonstration participants and 20 percent retained by the Medicare program. Third, the savings pools will not be larger than 5 percent of control group Medicare Part A and B expenditures. Any estimated savings above this cap will be retained by Medicare.

### **Recruitment of Nursing Homes**

CMS will solicit nursing homes in the selected States. Only nursing homes from the selected States will be eligible for the demonstration. Sites that are interested in participating will be required to submit an application to CMS that will include baseline information on the staffing and developmental measures. The applications will be used to assess the candidates and to assign them to experimental and control groups. Data from the applications will be the baseline for determining which nursing homes show significant improvement in the first year of the project.

### **Evaluation**

CMS will conduct an evaluation of this demonstration. L & M Policy Research has been selected as the evaluation contractor. Lessons learned from the evaluation will inform the design of a potential national nursing home value-based purchasing program.